

WHAT IS CLAIMED IS:

1. An in-plane switching liquid crystal display, comprising:
thin film transistors on a substrate,
5 scan lines and signal lines connected to the thin film transistors and
longitudinally and latitudinally crossing each other,
common wiring formed by the same layer as the scan lines and
generating electric fields substantially parallel to the substrate between a
common electrode connected to the common wiring and covering the signal
10 lines partially via an interlayer insulating film formed on the thin film
transistors,
pixel electrodes connected to the thin film transistors, and
contact holes connecting the common wiring and the common
electrode to each other and are formed at a ratio of one contact hole to a
15 plurality of the pixels with respect to the pixels divided and defined by the
scan lines and the signal lines.
2. A liquid crystal display according to claim 1, wherein:
when seeing, from one pixel formed with the contact hole, other
pixels formed with the contact holes, respectively, and located around the
20 one pixel, the other pixels are arranged at an interval of at least one pixel in
longitudinal and latitudinal directions from the one pixel.
3. An in-plane switching liquid crystal display, comprising:
thin film transistors on a substrate,
scan lines and signal lines connected to the thin film transistors and
25 longitudinally and latitudinally crossing each other,
common wiring formed by the same layer as the scan lines and
generating electric fields substantially parallel to the substrate between a
common electrode connected to the common wiring and covering the signal
lines partially via an interlayer insulating film formed on the thin film

transistors, and

pixel electrodes connected to the thin film transistors,

wherein the interlayer insulating film comprises;

two or more layers of inorganic insulating films,

5 first contact holes connecting the common wiring and the common electrode to each other,

second contact holes connecting the thin film transistors and the pixel electrodes to each other,

10 the first and second contact holes being each formed by superposition of corresponding contact holes formed in the two or more inorganic insulating films.

4. A method of manufacturing an in-plane switching liquid crystal display having thin film transistors on a substrate, scan lines and signal lines connected to the thin film transistors and longitudinally and latitudinally crossing each other, and common wiring formed by the same layer as the scan lines and generating electric fields substantially parallel to the substrate between a common electrode connected to the common wiring and covering the signal lines partially via an interlayer insulating film formed on the thin film transistors, and pixel electrodes connected to the thin film transistors,
15 the method comprising the steps of:

forming a first inorganic insulating film on the thin film transistors,

20 forming first contact holes for connecting the common wiring and the common electrode to each other, and second contact holes for connecting the thin film transistors and the pixel electrodes to each other using at least dry etching,

forming a second inorganic insulating film on the first inorganic insulating film,

forming third contact holes so as to be superposed on the first contact holes, and fourth contact holes so as to be superposed on the

second contact holes,

forming a conductive film on the second inorganic insulating film,

forming the common electrode connected to the common wiring via
the first and third contact holes, and

5 forming the pixel electrodes connected to the thin film transistors via
the second and fourth contact holes.

5. A method according to claim 4, wherein:

the third contact holes are formed inside the first contact holes while
the fourth contact holes are formed inside said second contact holes.

10 6. A method of manufacturing an in-plane switching liquid crystal
display having thin film transistors on a substrate, scan lines and signal lines
connected to the thin film transistors and longitudinally and latitudinally
crossing each other, and common wiring formed by the same layer as the
scan lines and generating electric fields substantially parallel to the substrate
15 between a common electrode connected to the common wiring and covering
the signal lines partially via an interlayer insulating film formed on the thin
film transistors, and pixel electrodes connected to the thin film transistors,
wherein:

the interlayer insulating film is formed by an inorganic insulating film,
20 and

a thickness of the inorganic insulating film is set to be greater than at
least a thickness of a portion of the insulating film where contact holes for
connecting the common wiring and the common electrode to each other are
formed by dry etching.